

Title (en)  
NUMERICAL APERTURE INCREASING LENS (NAIL) TECHNIQUES FOR HIGH-RESOLUTION SUB-SURFACE IMAGING

Title (de)  
TECHNIKEN ZUR HOCHAUFGELOSTEN ABBILDUNG UNTERHALB VON OBERFLÄCHEN MIT NUMERISCHER APERTUR ERHÖHENDEN LINSEN (NAIL)

Title (fr)  
TECHNIQUES DE FABRICATION DE LENTILLES AUGMENTANT L'OUVERTURE NUMERIQUE POUR UNE IMAGERIE DE SOUS-SURFACE HAUTE RESOLUTION

Publication  
**EP 1196792 A1 20020417 (EN)**

Application  
**EP 00957981 A 20000620**

Priority  
• US 0040253 W 20000620  
• US 14013899 P 19990621

Abstract (en)  
[origin: WO0079313A1] A viewing enhancement lens (18 - NAIL) which functions to increase the numerical aperture or light gathering or focusing power of viewing optics such as a microscope (26) used to view structure within a substrate such as a semiconductor wafer or chip or of imaging optics such as media recorders. The result is to increase the resolution of the system by a factor of between  $n$ , and  $n<2$ , where  $n$  is the index of refraction of the lens substrate.

IPC 1-7  
**G02B 3/00; G11B 7/00**

IPC 8 full level  
**G02B 3/00** (2006.01); **G02B 21/02** (2006.01); **G01N 21/95** (2006.01); **G02B 21/00** (2006.01); **G02B 21/33** (2006.01); **G02B 27/58** (2006.01); **G11B 7/00** (2006.01); **G11B 7/135** (2012.01)

CPC (source: EP)  
**B82Y 10/00** (2013.01); **G02B 21/00** (2013.01); **G02B 21/33** (2013.01); **G02B 27/58** (2013.01); **G11B 7/1374** (2013.01); **G11B 7/1387** (2013.01); **G11B 2007/13727** (2013.01)

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